
**SYSTEM AND METHOD FOR DIAGNOSING AND TRACKING
CONGESTIVE HEART FAILURE BASED ON
THE PERIODICITY OF CHEYNE-STOKES RESPIRATION
USING AN IMPLANTABLE MEDICAL DEVICE**

Abstract of the Disclosure

Techniques are provided for distinguishing Cheyne-Stokes Respiration (CSR) caused by central sleep apnea (CSA) from CSR caused by congestive heart failure (CHF) and for evaluating the severity of CHF, if present, based up CSR. A time period associated with the CSR is determined based upon separate evaluation of apnea and hyperpnea periods during CSR and then the time period is compared against a time-varying discrimination threshold derived from integrated thoracic impedance signals. If the time period exceeds the threshold, the CSR of the patient is caused by CHF; otherwise, the CSR is caused by CSA. Thereafter, the course of therapy delivered to the patient is controlled based upon the type of CSR. In addition, if the CSR is caused by CHF, the time period associated with CSR is employed to determine the severity of CHF -- with longer time periods being associated with more severe CHF.